

**Notice of Allowability**

Application No.

10/784,152

Examiner

Con P. Tran

Applicant(s)

SCHAUB, ARTHUR

Art Unit

2615

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment and Request for Continued Examination filed on 08/31/07.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☒ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application   |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>9/24/07</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date <u>8/31/07</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                  | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                        |
|   | 9. <input type="checkbox"/> Other _____   |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/31/07 has been entered.

## **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Frank Bernstein on September 24, 2007.

3. The application has been amended as follows:

**In the Specification** of the instant application, as originally filed on February 24, 2004:

page 1, line 12, after "application", - - by reference - - has been inserted.

**In the Formal Drawings** filed on February 24, 2004:

Figure 1, box 1, label - - First Filter Unit - - has been inserted;

Figure 1, box 2, label - - Second Filter Unit - - has been inserted;

Figure 1, box 3, label - - Compression Amplification - - has been inserted;

Figure 1, box 4, label - - Noise Suppression - - has been inserted;

Figure 1, box 5, label - - Controllable Filter - - has been inserted;

Figure 1, box 6, label - - Combination Unit - - has been inserted.

#### ***Information Disclosure Statement***

4. The information disclosure statement (IDS) submitted on 08/31/07 was filed after the mailing date of the Ex Parte Quayle on 07/03/07. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### ***Reason for Allowance***

5. **Claims 1-20** are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding independent **claim 1**, the prior art fails to teach or suggest device for the signal processing in a hearing aid that comprising a filter for the frequency-dependent amplitude adaptation of an input signal and means for the adaptation of coefficients of this filter in accordance with the input signal, wherein the device

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comprises a means for determining coefficients of a compression amplification  $g_m$ , which coefficients describe a frequency-dependent adaptation of the input signal in accordance with frequency-dependent signal levels  $x_n$  of the input signal, a means for determining coefficients of a noise suppression  $a_m$ , which coefficients describe a frequency-dependent adaptation of the input signal in accordance with interference noises detected in the input signal, wherein the means for the adaptation of coefficients of the filter establishes these coefficients from the coefficients of the compression amplification  $g_m$  and the coefficients of the noise suppression  $a_m$ .

Regarding independent **claim 10**, the prior art fails to teach or suggest a method for the signal processing in a hearing aid, in which coefficients of a filter for the frequency-dependent amplitude adaptation of an input signal are adapted in accordance with this input signal, the method comprises the steps of determining coefficients of a noise suppression  $a_m$ , which describe a frequency-dependent adaptation of the input signal in accordance with interfering noises detected in the input signal, and calculating the coefficients of the filter out of the coefficients of the compression amplification  $g_m$  and the coefficients  $a_m$  of the noise suppression, in combination with other limitations, as specified in the independent claim 10.

**Claims 2-9** are allowed by virtue of their dependency on claim 1.

**Claims 11-20** are allowed by virtue of their dependency on claim 10.

**Conclusion**


6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Con P. Tran whose telephone number is (571) 272-7532. The examiner can normally be reached on M - F (8:30 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Vivian C. Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

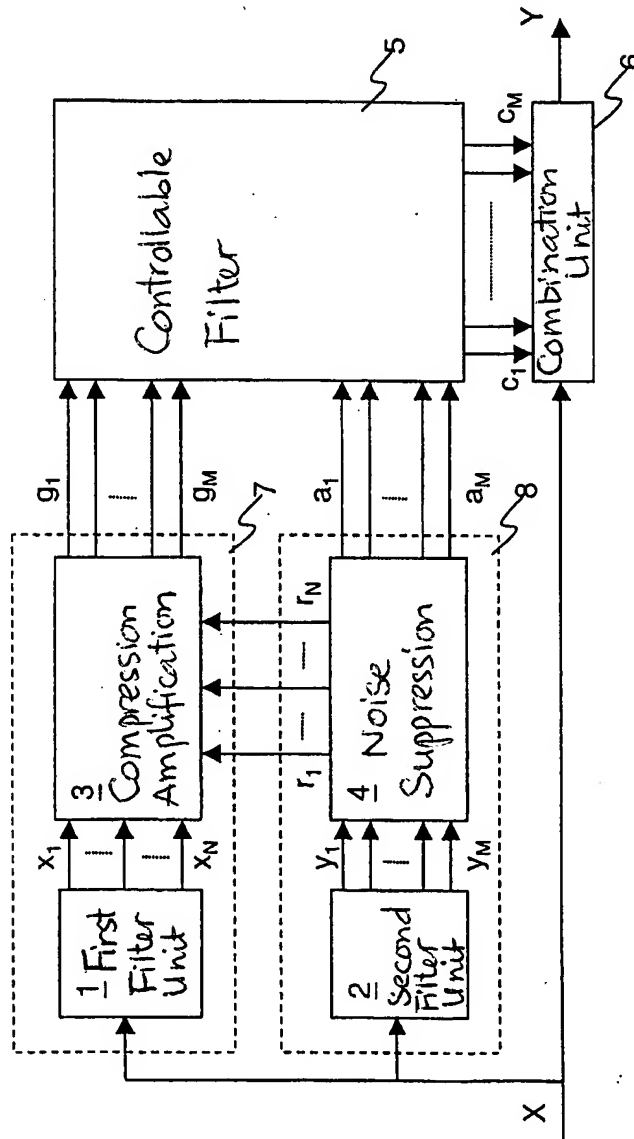
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cpt CPJ  
September 25, 2007

  
VIVIAN CHIN  
SUPERVISOR PATENT EXAMINER  
TECHNOLOGY CENTER 2900

Examiner's Amendment

Fig. 1



Con P. Tram  
CPJ 09/24/07